REMARKS

Claims 1-47 are pending in the application. It is gratefully acknowledged that Claims 2-4, 9-13, 17, 18, 22-24, 27, 29, 30, 34-39 and 46 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. The Examiner rejected Claims 1, 5-8, 14-16, 19-21, 25, 26, 28, 31-33, 40-45 and 47 under 35 U.S.C. §102(e) as being anticipated by Tiedemann, Jr. et al. (U.S. Publication 2003/0161285, "Tiedemann").

Please cancel Claims 16, 28, 32, 33, 40 and 41, without prejudice. Please amend Claims 17, 19, 29, 31, 34, 37, 42, 43, 45 and 47 as set forth herein. No new matter has been added.

Please note that Claims 17, 29, 34 and 37 have been rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Thus, it is respectfully submitted that Claims 17, 29, 34 and 37 are in condition for allowance.

Regarding the rejections of independent Claims 1, 8 and 20 under §102(e), the Examiner states that Tiedemann Jr., et al. anticipates each and every feature of the claims. Tiedemann discloses a method and apparatus for channel quality feedback in a wireless communication. Tiedemann Jr., et al. teaches the use of "differential indicators" to eliminate the need to frequently or continuously transmit an entire C/I.

The claims of the present application relate to a mobile station that measures C/Is of all the subcarriers, generates feedback information according to the measured C/Is, determines a particular coherence bandwidth, and selects a subcarrier that will transmit feedback information. The mobile station is then allowed to measure only the C/I of a predetermined subcarrier instead of measuring the C/Is of all of the subcarriers, and to transmit the measured C/I. Assuming that subcarriers within the coherence bandwidth have similar channel conditions, feedback information can be formed using only one C/I value representing the condition of a subcarrier group.

The claims of the present application set a coherence bandwidth and transmit feedback information using only one C/I value representing the condition of a subcarrier group within the coherence bandwidth.

In addition the claims of the present application relate to measuring the C/I value of the subcarriers within a coherence bandwidth, and averaging C/I values.

With respect to Claim 1, this claim recites that a subcarrier from the plurality subcarriers is determined for transmitting feedback information in a given coherence bandwidth. Tiedemann does not disclose this feature. Tiedemann processes all frequencies. Tiedemann does not determine one subcarrier within a given coherence bandwidth, nor does Tiedemann disclose that this determination of Claim 1 is being made for transmitting feedback information.

Claim 1 goes on to recite that the feedback information of the subcarrier (i.e. the determined subcarrier) is generated. Tiedemann does not disclose generating feedback information of a determined subcarrier.

Claim 1 relates to a method wherein one subcarrier is selected from a plurality of subcarriers that are within a coherence bandwidth. That one subcarrier is used to generate feedback information. Therefore, there is no need to generate the feedback information for the other subcarriers in the coherence bandwidth.

With respect to Claim 8, Claim 3 recites estimating carrier-to-interference ratio (C/I) values of the plurality of subcarriers using a signal received from the base station. Again, Tiedemann generates C/I values. Tiedemann does not perform estimations of C/I values. Further Tiedemann does not estimate these C/I values of a plurality of subcarriers using one signal received from a base station.

Claim 8 goes on to recite that feedback information is generated using the estimated C/I values. Tiedemann uses C/I values to generate feedback information; Tiedemann does not use *estimated* C/I values to generate feedback information.

Claim 8 also recites that the preceding generation is based on whether a current time slot is a time slot at which C/I values of all subcarriers in a given coherence bandwidth are transmitted. First, the concept of delineating the subcarriers by a given coherence bandwidth is not disclosed by Tiedemann. Second, the generation being based on particular time slot, i.e. a current time slot is a time slot at which C/I values of all subcarriers in a given coherence bandwidth are transmitted, is not disclosed by Tiedemann.

With respect to Claim 20, this claim recites that carrier-to-interference ratio (C/I) values of subcarriers in a given coherence bandwidth are analyzed using the received feedback information. As stated above, Tiedemann does not disclose the analyzing subcarriers based on a coherence bandwidth limitation.

Regarding Claims 42 and 45, each of these claims has been rewritten in independent form and to include the subject matter of Claim 40. Claim 42 recites "a feedback channel receiver for receiving feedback information using carrier to interference ratio(C/I) value from the mobile station over a feedback channel; and a feedback information analyzer for estimating C/I values of the subcarriers according to a preset condition and estimating the channel condition of the forward link, wherein the feedback information is a reference C/I value of a subcarrier generated in the reference C/I transmission time slot in a given coherence bandwidth." Claim 45 recites, "a feedback channel receiver for receiving feedback information using carrier to interference ratio(C/I) value from the mobile station over a feedback channel; and a feedback information analyzer for estimating C/I values of the subcarriers according to a preset condition and estimating the channel condition of the forward link, wherein the feedback information includes a reference C/I value of one subcarrier generated in the reference C/I transmission time slot and difference C/I values of others subcarrier between a previously stored value and the C/I value measured at the current time slot in a given coherence bandwidth." Since Tiedemann, Jr. et

al. does not teach or disclose these features, it is respectfully submitted that Claims 42 and 45 are in condition for allowance.

Independent Claims 1, 8, 17, 20, 29, 34, 37, 42 and 45 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 5-7, 14, 15, 19, 21, 25, 26, 31, 43, 44 and 47, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 5-7, 14, 15, 19, 21, 25, 26, 31, 43, 44 and 47 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1-15, 17-27, 29-31, 34-39 and 42-47, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,

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